Remarks

Claims 7-23, 25-36 and 42 are pending.

Response to Examiner's Response to Arguments

The Examiner states (Office Action, page 7) that the "amendments to the claims essentially appear to incorporate the subject matter of canceled claim 24, and incorporate it as the now recited first and second track sections, and their respective end positions or nodes." This statement is respectfully traversed.

With respect to Claim 7, for example, that claim, as it was previously amended on April 16, 2007, recites "controlling or monitoring a plurality of track sections with a plurality of track circuits". It is respectfully submitted that the Examiner has ignored this refined recital in the above statement. Furthermore, it is respectfully submitted that the Examiner has ignored this refined recital in the discussion of Claim 7 on page 2, last paragraph through page 4, lines 1-4, of the Office Action. Therefore, for that reason[1], it is submitted that Claim 7 patentably distinguishes over the cited references.

As to Claim 29, that claim, as was previously amended on April 16, 2007, recites "means for determining a first track section occupied by said train from a plurality of track sections, which are controlled or monitored with a plurality of track circuits". Again, it is respectfully submitted that the Examiner has ignored this refined recital in the above statement of the Examiner. Furthermore, it is respectfully submitted that the Examiner has ignored the refined recital that the track sections "are controlled or monitored with a plurality of track circuits" in the discussion of Claim 29 on page 2, last paragraph through page 4, lines 1-4, of the Office Action. Accordingly, for that reason[2], it is submitted that Claim 29 patentably distinguishes over the cited references.

The Examiner admits (Office Action, page 3) that U.S. Patent No. 6,871,137 (Scaer et al.) does not teach or suggest "relating the detected position of a train with respect to a particular section of track". Scaer et al. does not recite any of "track circuit", "track circuits", "section" or "sections". Hence, that reference has nothing to do with the refined recital of a track section that is controlled or monitored with a plurality of track circuits.

Assuming, without admitting, that U.S. Patent Application Publication No. 2002/0010531 (Hawthorne et al.) might somehow provide a "GPS track section location

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[1] Additional reasons are discussed, below, under the section dealing with rejections under Section 103(a).

[2] See footnote 1.

teaching" as is argued by the Examiner at page 3, last paragraph of the Office Action, that reference has nothing to do with the refined recital of a track section that is controlled or monitored with a plurality of track circuits. Hawthorne et al. also does not recite any of "track circuit", "track circuits", "section" or "sections".

As to a "track section", the Examiner relies upon ¶¶11 and 34-36 and Figure 2 of Hawthorne et al..

Paragraph 11 of Hawthorne et al. provides that the position determining devices are Global Positioning Systems.

Paragraph 34 of Hawthorne et al. (emphasis added) provides that:

> Track structure and other information about the track may also be collected as the train 10 traverses the track 18. As illustrated in FIG. 2, the GPS information as well as information of the distance travel from an axle generator or tachometer information are collected as a function of position or time and correlated with structures relative the current location. If there are track structures which are of interest and that are to be correlated with the train location, they are manually or automatically determined and inputted. This information includes one or more mile posts, bridges, tunnels, signals, crossings, overpasses, underpasses, sidings, parallel track and whistle posts. The manual entry would be by the engineer or another observer in the lead locomotive 12. There may also be someone in the trail locomotive 14. If the particular track structure has a transponder, the train can automatically correlate the information with the position as it passes by and receives the signal from the transponder.

Paragraph 35 of Hawthorne et al. deals with navigational receivers or GPS systems provided throughout the train. Paragraph 36 of Hawthorne et al. deals with knowing the position of at least two points of the train, and determining more accurately where the train is on the track by comparison with prestored data bases.

In view of the above discussion, it is submitted that Hawthorne et al. does not teach or suggest, and adds nothing to Scaer et al., regarding the refined recital of a track section that is controlled or monitored with a plurality of track circuits.

Furthermore, since these references, whether taken alone or in combination, do not contemplate the refined recital of track sections that are controlled or monitored with a plurality of track circuits, as set forth in Claim 7, they cannot teach or suggest any of determining a first track section of such track sections occupied by a train; determining at least one second track section of such track sections, which has been cleared to be occupied by such train at a future time; determining geographic starting and ending positions of such

first track section; or determining geographic starting and ending positions of such at least one second track section.

REJECTIONS UNDER 35 U.S.C. § 103(a)

The Examiner rejects Claims 7-10, 17-23 and 26-30 on the ground of being unpatentable over Scaer et al. in view of Hawthorne et al..

Claim 7 recites, *inter alia*, ***controlling*** or ***monitoring*** a plurality of track ***sections with a plurality of track circuits***. Such track sections are controlled or monitored by plural track circuits, which are used to control (*e.g.*, through signals placed in accordance with endpoints of such track circuits) and monitor the movements of trains.

The Examiner states (Office Action, page 3, first paragraph) that Scaer et al. does not disclose relating the detected position of a train with respect to a particular section of track.

As was discussed in detail, above, in the Response to Examiner's Response to Arguments section, Scaer et al., which employs vehicle GPS tracking to track the movement of vehicles and display the position of vehicles on a GIS display, does not teach or suggest any track section, much less determining a track section occupied by a train, and much less any controlling of monitoring of plural track sections with plural track circuits.

Hawthorne et al. does not teach or suggest any geographic information system database including static roadway data, although it purports (Paragraph 36) to determine where a train 10 is on a track 18 by knowing the position of at least two points of the train 10 and comparing these points with prestored data bases. Hawthorne et al., which purports to know the position of at least two points of a train and to determine a more accurate determination of where the train is on a track by comparison with prestored data bases, does not teach or suggest any track section, much less determining a track section occupied by a train, and much less any controlling or monitoring of plural track sections with plural track circuits. This was also discussed in detail, above, in the Response to Examiner's Response to Arguments section.

Therefore, the references, whether taken alone or in combination, do not teach or suggest any track section, much less any controlling or monitoring of plural track sections with plural track circuits.

It is noted that the Examiner (in connection with Claim 11) states (Office Action, page 4, next to last paragraph) that Scaer et al. and Hawthorne et al. do not teach or suggest "determining the starting/ending positions of 'another track section'".

Hence, these references Scaer et al. and Hawthorne et al. do not teach or suggest determining at least one second track section, which has been ***cleared*** to be occupied by a train at a future time, or determining geographic starting and ending positions of such at least one second track section.

Hawthorne et al., which determines which of two parallel tracks a train is on (Figures 4A, 4B and 5; Paragraphs 11, 34-36 and 38-40), which purports to know the position of at least two points of a train and to determine a more accurate determination of where the train is on a track by comparison with prestored data bases, does not teach or suggest any track section, much less determining a track section occupied by a train, and much less any controlling or monitoring of plural track sections with plural track circuits. Hence, this reference does not teach or suggest the refined recital of determining a track ***section occupied by a train*** in combination with determining ***geographic starting and ending positions*** of such track ***section***. Scaer et al., which does not disclose relating the detected position of a train with respect to a particular section of track, adds nothing to Hawthorne et al. in this regard. As such, the references do not teach or suggest determining geographic information regarding a track ***section occupied by a train*** from ***geographic starting and ending positions*** of a track ***section and*** from a geographic information system database.

Furthermore, the references do not teach or suggest determining second geographic information regarding the recited at least one second track section from geographic starting and ending positions of such at least one second track section and from a geographic information system database; and displaying the recited first and second geographic information regarding a first track section occupied by a train and such at least one second track section with geographic information regarding static roadway data and static track data.

Therefore, for the above reasons, Claim 7 patentably distinguishes over the references.

Claims 8-10, 17-23 and 26-28 depend either directly or indirectly from Claim 7, include all of the limitations thereof, and patentably distinguish over the references for at least the same reasons.

Furthermore, Claim 8 recites storing a starting longitude, a starting latitude, an ending longitude and an ending latitude for each of the track ***sections*** in another database; determining the first geographic information regarding the first track section occupied by the train from the starting longitude, the starting latitude, the ending longitude and the ending latitude of the first track section occupied by the train and from the geographic information

system database; and determining the second geographic information regarding the at least one second track section from the starting longitude, the starting latitude, the ending longitude and the ending latitude of each of the at least one second track section from the geographic information system database. Since the references do not teach or suggest the limitations of Claim 7, they clearly do not teach or suggest these additional limitations which further patentably distinguish over the references.

Furthermore, Claim 18 recites, *inter alia*, dynamically determining the first geographic information regarding the first track ***section occupied by the train***; and entering the dynamically determined first geographic information in a train position layer of the geographic information system database. Since the references do not teach or suggest the limitations of Claim 7, they clearly do not teach or suggest these additional limitations which further patentably distinguish over the references.

Claim 22 is not separately asserted to be patentable except in combination with Claim 7 from which it depends.

As to independent Claim 29, the references do not teach or suggest means for determining a first track ***section*** occupied by a train from a plurality of track ***sections***, which are ***controlled or monitored*** with a ***plurality of track circuits***; or means for determining at least one second track section of such track sections, which has been ***cleared*** to be occupied by such train at a future time.

The Examiner states (Office Action, page 3, first paragraph) that Scaer et al. does not disclose relating the detected position of a train with respect to a particular section of track.

As was discussed in detail, above, in the Response to Examiner's Response to Arguments section, Scaer et al., which employs vehicle GPS tracking to track the movement of vehicles and display the position of vehicles on a GIS display, does not teach or suggest any track section, much less means for determining a track section occupied by a train, and much less any track section, which is controlled or monitored with a track circuit.

Hawthorne et al. does not teach or suggest any geographic information system database including static roadway data, although it purports (Paragraph 36) to determine where a train 10 is on a track 18 by knowing the position of at least two points of the train 10 and comparing these points with prestored data bases. Hawthorne et al., which purports to know the position of at least two points of a train and to determine a more accurate determination of where the train is on a track by comparison with prestored data bases, does not teach or suggest any track section, much less determining a track section occupied by a

train, and much less any track section, which is controlled or monitored with a track circuit. This was also discussed in detail, above, in the Response to Examiner's Response to Arguments section.

Therefore, the references, whether taken alone or in combination, do not teach or suggest any track section, much less any track section, which is controlled or monitored with a track circuit.

It is noted that the Examiner (in connection with Claim 11) states (Office Action, page 4, next to last paragraph) that Scaer et al. and Hawthorne et al. do not teach or suggest "determining the starting/ending positions of 'another track section'".

Hence, these references do not teach or suggest means for determining a second track section of the recited track sections, which has been ***cleared*** to be occupied by a train at a future time, or means for determining geographic starting and ending positions of such second track section.

Hawthorne et al., which determines which of two parallel tracks a train is on (Figures 4A, 4B and 5; Paragraphs 11, 34-36 and 38-40), which purports to know the position of at least two points of a train and to determine a more accurate determination of where the train is on a track by comparison with prestored data bases, does not teach or suggest any track section, much less any track section, which is controlled or monitored with a track circuit. Hence, this reference does not teach or suggest the refined recital of means for determining a first track section occupied by a train in combination with means for determining geographic starting and ending positions of such first track section. Scaer et al., which does not disclose relating the detected position of a train with respect to a particular section of track, adds nothing to Hawthorne et al. in this regard.

Furthermore, the references do not teach or suggest means for determining second geographic information regarding a second track section from geographic starting and ending positions of such second track section and from a geographic information system database; and means for displaying first and second geographic information regarding a first track section occupied by a train and such second track section with geographic information regarding said static roadway data and said static track data. Accordingly, for the above reasons, Claim 29 patentably distinguishes over the references.

Claim 30 depends from Claim 29, includes all of the limitations thereof, and patentably distinguishes over the references for the same reasons. Claim 30 is not separately asserted to be patentable except in combination with Claim 29 from which it depends.

The Examiner rejects Claims 11-16, 24 and 42 on the ground of being unpatentable over Scaer et al. and Hawthorne et al. and further in view of U.S. Patent Application Publication No. 2004/0182969 (Kane et al.).[3]

Kane et al. discloses that train tracks are divided into sections, referred to in the art as blocks. Figure 1 shows an Automated Block Signaling (ABS) system 10 in which a train track 20 is divided into three blocks 30, 40, 50 labeled "A," "B" and "C," respectively. Wayside signals 32, 42 and 52 are associated with each of the respective blocks 30, 40 and 50. The wayside signals 32, 42, 52 include colored lights to provide visual signal information to operators on trains approaching the signals. The signal 52 for block C 50 will be red if a train 60 (not shown) is in block C 50 or if a broken rail has been detected in block C 50. A red signal means stop before entering the block. When the signal 52 in block C 50 is red, the signal 42 in block B 40 is yellow, which signifies that speed should be reduced in preparation for stopping prior to entering the next block C 50. The signal 32 in block A 30 will be green, which signifies no restriction is in place for that block and a train may proceed through the block at maximum authorized speed. The blocks are traditionally sized such that a train may be brought to a stop within one block under worst case conditions (e.g., maximum speed, maximum train weight, etc.), thereby ensuring that a train that had been proceeding at full speed upon entering a yellow block can be brought to a stop before entering a next block if the next block is red.

Kane et al. discloses that a problem shared by such systems is that there is no provision for lifting the restrictive signal in a block if conditions in the next block causing the restrictive signal "clear up."[4] Causing a train to operate under a restrictive signal unnecessarily makes operation of the train less efficient, which increases costs. Kane et al. further discloses a train control system and method that uses signal information from a next block to change a restrictive signal in a block currently occupied by a train to a less restrictive signal if it can be ascertained that the condition causing the more restrictive signal has changed.

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[3] In the final Office Action (pages 4 and 5) mailed on December 14, 2006, this rejection was also applied to Claim 25. The present Office Action (pages 4 and 5) does not apply this rejection or apparently any other rejection to Claim 25. Hence, clarification from the Examiner is requested.

[4] This is the only apparent recital of the word "clear" by Kane et al. (¶5), which recital is in its Background section.

Kane et al. discloses (but does not show) an operator pendant 170 connected to a control module 110.[5] The pendant 170 may take the form of an operator display and may be used to display signals from the signal devices 32, 42, 52 to the train operator and to provide other messages to the train operator and receive certain inputs from the train operator.

Kane et al., which discloses (¶0029) that "wayside signal devices detect when a train is approaching (using, e.g., track circuits or radar detectors) and transmit signals at that time", does not disclose or suggest how track circuits are related to blocks or even that they are. Instead, this reference concerns detecting approaching trains generally and identifies various techniques that can be employed. In fact, track circuits are mentioned in this one instance along with radar detectors, which, although no relationship is implied because of the disjunction between them, certainly does not teach or suggest train occupancy detection via track circuits.

Kane et al., which discloses track blocks and detecting approaching trains, does not teach or suggest a mechanism for indicating occupancy (*i.e.*, determining a first track section of plural track sections ***occupied*** by a train) within a block.

Kane et al., which discloses signals and detecting approaching trains, does not teach or suggest track occupancy (*i.e.*, determining a first track section of plural track sections ***occupied*** by a train) as indicated by track circuits.

Kane et al., which discloses (¶0029) that a "central authority tracks movement of trains and commands the wayside signal devices to transmit the signal information [to a train] when a train is approaching", does not teach or suggest determining at least one second track section, which has been cleared to be occupied by a train at a future time, much less displaying first and second geographic information regarding a first track section occupied by a train and a second track section to be occupied by a train at a future time, with geographic information regarding static roadway data and static track data. Although Kane et al. mentions a central authority as one possible source for communicating signal lamp states to a train, this does not concern granting authorities (*e.g.*, a second track section to be occupied by a train at a future time), but is, instead, about a train receiving signal lamp states from a central authority.

Kane et al., which discloses blocks 30, 40, 50 and wayside signals 32, 42 and 52, adds nothing to Scaer et al. and Hawthorne et al. regarding determining geographic

[5] An operator pendant 270 connected to a control module 210 is shown in Figure 2 of Kane et al..

starting and ending positions of a track section as controlled or monitored by a track circuit to render Claim 7 unpatentable.

Claims 11-16 and 42 depend directly or indirectly from Claim 7, include all of the limitations thereof, and patentably distinguish over the references for at least the same reasons.

Furthermore, Claim 11 recites determining another track section occupied by the train; determining geographic starting and ending positions of the another track section; determining geographic information regarding the another track section occupied by the train from the geographic starting and ending positions of the another track section and from the geographic information system database; and displaying the geographic information regarding the another track section occupied by the train.

The Examiner states (Office Action, page 4, next to last paragraph) that Scaer et al. and Hawthorne et al. do not teach or suggest "determining the starting/ending positions of 'another track section'".

Kane et al., which displays signals from signal devices 32, 42, 52 to a train operator and provides other messages to the train operator, and which detects approaching trains, adds nothing to the other references regarding determining geographic starting and ending positions of another track section ***occupied by*** a ***train***; determining geographic information regarding such another track section ***occupied by*** such ***train*** from such geographic starting and ending positions of such another track section and from a geographic information system database; and displaying such geographic information regarding such another track section ***occupied by*** such ***train***.

The Examiner concludes (Office Action, page 4, last paragraph) that "train position information used in conjunction with track information to determine the status of the next (cleared/another) section of track, and a yet 'further' or 'cleared' section of track". Here, the Examiner only makes specific reference to "Figure 2" of Kane et al.. It is respectfully submitted that Figure 2 of Kane et al., which is a "logical block diagram of a train control system" does not support the Examiner's conclusion.

It is well settled that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness". *See In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed Cir. 2006).

Figure 1 of Kane et al., with reference to ¶¶12-16 as relied upon by the Examiner, only shows that the signal 52 for block C 50 is red if a train 60 (not numbered in

Figure 1) is in block C 50 or if a broken rail has been detected in block C 50. This has nothing to do with the combination of "a first track section of said track sections occupied by said train" (Claim 7) and ***another*** track section ***occupied by*** such ***train*** (Claim 11).

Therefore, for the above reasons, Claim 11 further patentably distinguishes over the references.

Furthermore, Claim 12 recites responding to an event defined by the determining another track section occupied by the train; and ***continuously*** displaying in about ***real-time*** the ***geographic information*** regarding the ***another*** track ***section*** occupied by the train.

Applicants attorney could find no specific reasons for rejecting this claim and its refined recital in the Office Action (see pages 4 and 5 of the Office Action)[6]. The Examiner is respectfully requested to address this point, which was also raised in the Amendment filed on April 16, 2007.

Kane et al. adds nothing to Scaer et al. and Hawthorne et al. regarding displaying geographic information regarding a track section occupied by a train.

Although Scaer et al. discloses that the system 10, using a tracking subsystem, can provide real-time in-transit visibility of vehicles and shipments, here, it is submitted that "tracking" means "querying for status," where "status" means the current, but static location of a shipment (or carrier of the shipment). At column 2, lines 45-48 of Scaer et al., it is stated that users have "the immediate ability to track and report surface shipments and vehicle locations on an extremely accurate spatial data background". This implies that the user has the ability to request updates, which are displayed on a map, but that they are not actually receiving ***continuous*** movement information for vehicles in about ***real-time***. In other words, the displayed static information is not continuous. This view is further supported by the sentence beginning at column 2, line 66 of Scaer et al.: "[t]he system further includes a tracking application residing on the at least one server, the tracking application comprising computer instructions for presenting a web-based interface for soliciting a user request for tracking information relating to in-transit shipments, gathering vehicle location information…." Again, the implication is that the user must request tracking information, which prompts the system to retrieve it, rather than information always being ***continuously***

[6] The Office Action (page 5, second paragraph, lines 1 and 2) refers in connection with "claims 11-13" to "determining another track section is occupied and yet another cleared". However, Claim 12 recites "responding to an event defined by said determining another track section occupied by said train; and continuously displaying in about real-time said geographic information regarding said another track section occupied by said train."

displayed in about ***real time***. Kane et al. and Hawthorne et al. add nothing to Scaer et al. in this regard. Hence, Claim 12 further patentably distinguishes over the references.

As to Claims 13 and 15, the Examiner states (Office Action, page 4) that Scaer et al. and Hawthorne et al. do not teach or suggest clearing any track section or planning any track section.

Claim 13 recites clearing another track section of the track sections to be occupied by the train; determining as a cleared track section the another track section; determining geographic starting and ending positions of the cleared track section; determining geographic information regarding the cleared track section from the geographic starting and ending positions of the cleared track section and from the geographic information system database; and displaying the geographic information regarding the cleared track section with the displayed first geographic information regarding the first track section occupied by the train.

The Examiner states that Kane et al. discloses "a train control 'block' system (as shown in figure 2), in which train position information used in conjunction with track information to determine the status of the next (cleared/another) section of track, and a yet 'further' or 'cleared' section of track." However, a review of the reference shows that there is no use of "clear" or "cleared" or "further" in this context in the reference. Although it seems that the Examiner is quoting the use of "block" from Kane et al., the quotation of "cleared" is not understood. The reference does state in its Background information that "[a] problem shared by such known systems is that there is no provision for lifting the restrictive signal in a block if conditions in the next block causing the restrictive signal 'clear up.'" This is not the same use of the word "cleared". The discussion in the Background of the reference means that conditions have changed in the block (which could be, for example, fixing a broken rail). This does not teach or suggest that a train has been cleared to move into a section of track. The Examiner is respectfully requested to address this point, which was also raised in the Amendment filed on April 16, 2007.

Hence, Kane et al. does not teach or suggest clearing another track section of the recited track sections to be occupied by a train.

Kane et al., which does not concern granting authorities (*e.g.*, another track section to be occupied by a train at a future time), but is, instead, about a train receiving signal lamp states from a central authority, adds nothing to Scaer et al. and Hawthorne et al. regarding determining ***geographic starting and ending positions*** of a ***cleared*** track section; determining geographic information regarding such cleared track section from such

geographic starting and ending positions of such cleared track section and from a geographic information system database; and displaying such geographic information regarding such cleared track section with displayed first geographic information regarding a first track section occupied by the train. Therefore, Claim 13 further patentably distinguishes over the references.

Furthermore, Claim 15 recites planning at least one third track section of the track sections to be occupied by the train; determining as at least one planned track section the at least one third track section of the track sections to be occupied by the train; determining geographic starting and ending positions of the at least one planned track section; determining geographic information regarding the at least one planned track section from the geographic starting and ending positions of the at least one planned track section and from the geographic information system database; and displaying the geographic information regarding the at least one planned track section with the displayed first geographic information regarding the first track section occupied by the train and with the displayed geographic information regarding the cleared track section.

A review of Kane et al. shows that there is no use of "plan" or "planned" or "planning" in the reference. Kane et al. does not teach or suggest that a train has been ***planned*** to move into a section of track. The Examiner is respectfully requested to address this point, which was also raised in the Amendment filed on April 16, 2007. The recital of "planning" at least one third track section of the recited track sections to be occupied by the train is not dealt with on pages 4-5 of the Office Action, much less at page 5, second paragraph, lines 2-5, which deal with Claims 14-16.

Kane et al., which does not concern planning (*e.g.*, planning another track section of the recited track sections to be occupied by a train), but is, instead, about a train receiving signal lamp states from a central authority, adds nothing to Scaer et al. and Hawthorne et al. regarding ***planning*** a track section to be occupied by a train. Accordingly, Claim 15 further patentably distinguishes over the references.

Claim 25 was not expressly rejected by the Examiner. Claim 25 depends from Claim 7, includes all of the limitations thereof, and patentably distinguishes over the references of record for at least the same reasons. Furthermore, Claim 25 recites determining as a planned track section a further track section planned to be occupied by the train at another future time; and displaying geographic information regarding the planned track section with the first and second geographic information regarding the first track section occupied by the train and the at least one section track section. Kane et al., which does not

concern planning (*e.g.*, planning another track section of the recited track sections to be occupied by a train), but is, instead, about a train receiving signal lamp states from a central authority, adds nothing to Scaer et al. and Hawthorne et al. regarding ***determining*** as a ***planned*** track section a further track section ***planned*** to be occupied by a train at another future time. Claim 25 further patentably distinguishes over the references for similar reasons as were discussed above in connection with Claim 15.

Claim 42 is not separately asserted to be patentable except in combination with Claim 7 from which it depends.

The Examiner rejects Claims 31-36 on the ground of being unpatentable over Scaer et al. and Hawthorne et al. and further in view of U.S. Patent No. 6,650,998 (Rutledge et al.).

Rutledge et al. discloses a map database 145 containing spatial information relating to conventional geographical maps of roads, rivers, streams, vegetation, parks and building patterns and other features complete with legend, border and titles. The geographical area of interest is defined by ranges of latitude and longitude coordinates.

Rutledge et al., which discloses a map database 145, does not teach or suggest tracking of trains and their authorities to move. Rutledge et al. does not teach or suggest any track section, much less determining a track section occupied by a train, and much less any controlling or monitoring of plural track sections with plural track circuits. Rutledge et al. adds nothing to Scaer et al. and Hawthorne et al. regarding any means for determining a first track section, as controlled or monitored by a track circuit, occupied by a train in combination with means for determining geographic starting and ending positions of such first track section to render Claim 30 unpatentable.

Claims 31-36 depend directly or indirectly from Claim 30, include all of the limitations thereof, and patentably distinguish over the references for at least the same reasons.

Claim 32 recites that the means for determining first geographic information regarding the first track section occupied by the train includes a train position routine, which receives from the translation routine the starting latitude, the starting longitude, the ending latitude and the ending longitude and responsively determines at least one of the representations of railroad tracks from the static track data of the geographic information system database; and that the means for displaying the first and second geographic information regarding the first track section occupied by the train and the at least one second

track section displays a feature associated with the at least one of the representations of railroad tracks.

Furthermore, Claim 34, which depends indirectly from Claim 32, recites that the means for displaying the first and second geographic information regarding the first track section occupied by the train and the at least one second track section includes a global communication network, a web browser and a display applet; and that the train position routine stores the feature in the geographic information system database and outputs a streaming vector corresponding to the feature over the global communication network to the display applet.

Rutledge et al. (Figure 1 or columns 3 and 4) does not disclose or suggest any display applet, streaming vector or train position. Rutledge et al., which discloses a map database 145 (Figure 1) and a method for a server to enable a user of a user terminal to search a data source accessible by the server, and which stores map features in vector format, adds nothing to Scaer et al. and Hawthorne et al. regarding any ***train position routine*** that stores a feature in a geographic information system database and outputs a ***streaming*** vector corresponding to such feature over a global communication network to a ***display applet***.

The Examiner refers (Office Action, page 7, third paragraph) to "a global communication network, web browser, display applets and streaming vector based display outputs for displaying train position, for the most part please see figure 1 of Rutledge et al., as well as the bottom of column 3 and most of column 4".

However, a search of Rutledge et al., including Figure 1 thereof, shows no recital or suggestion of a "display applet" or a "streaming vector". There is, however, reference to "rivers and streams" and "information stored in raster format appears less realistic than that stored in vector format" in connection with Figures 2A and 2B of the reference.

Furthermore, in connection with Claims 34-36, the Examiner's subsequent conclusion regarding "the conventional manner in which GIS type spatial data is displayed when it is constructed of a multitude of user selectable layers" does not appear to be reasonably related to the recitals of those claims.

Clearly, Rutledge et al. adds nothing to Scaer et al. and Hawthorne et al. regarding the refined recital of ***display applets*** and ***streaming*** vector based display outputs for displaying ***train position***. Therefore, Claim 34 further patentably distinguishes over the references.

Furthermore, Claim 35 recites that the ***display applet*** receives the ***streaming*** vector and displays a representation of the recited feature on a geographic information system map display. Since the references do not teach or suggest the limitations of Claim 34, they clearly neither teach nor suggest these further limitations which further patentably distinguish over the references.

Reconsideration and early allowance are requested.

Respectfully submitted,

/Kirk D. Houser/

Kirk D. Houser
Registration No. 37,357
Attorney for Applicants

(412) 566-6083